

REMARKS

The Official Action dated April 6, 2005, has been carefully considered. Accordingly, the present Amendment is believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present amendment, claim 19 has been amended to relate to a method of making the breathable material of Claim 1. Claims 26-29 have been added, support for which may be found at page 4 of the application. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

In the Official Action, the Examiner required restriction under 35 U.S.C. §121 between Group I, claims 1-18 directed to the breathable material, and Group II, claims 19-25 directed to a method of making a breathable material. Applicant affirms the provisional election of Group I, claims 1-18, and newly added claims 26 and 27. However, this election is traversed on the basis that claims 19-25 and newly added claims 28 and 29 now depend, directly or indirectly, from claim 1, and therefore should be examined with claim 1. Reconsideration of the restriction requirement is therefore respectfully requested. Moreover, in the event that the restriction requirement is maintained, rejoinder of claims 19-25, 28 and 29 upon allowance of claim 1 is requested.

Claims 1, 2, 5-10, 12-16 and 18 were rejected under 35 U.S.C. §102(e) as being anticipated by the Gardner et al U.S. Patent Publication No. 2002/0071944. The Examiner asserts that Gardner et al disclose a breathable composite material useful as house wrap, wherein the film and nonwoven fabric layers comprise polyolefin resin compositions such as high density polyethylene and polypropylene. The Examiner refers to Example 8 as disclosing a composite having MVTR in the range claimed.

However, as will be set forth in detail below, Applicants submit that the breathable materials defined by claims 1, 2, 5-10, 12-16 and 18 are not anticipated by Gardner et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claim 1, the present invention is directed to breathable material comprising a low-elongation fabric layer and a microporous coating thereon. The microporous coating comprises a crystalline polymer composition and a filler. As set forth at page 6 of the specification, the term "low elongation" generally refers to a material which exhibits less than about 30% elongation, for example as measured according to ASTM D5034, in at least one direction. For the Examiner's reference, Exhibit A attached herewith includes Samples 1 and 2 of low-elongation fabric comprising the commercial materials CLAF® and TYPAR®, respectively, described at pages 4-5 of the present application. The low elongation character is evident from these samples. As further set forth at page 6 of the specification, crystalline polymer composition is defined as a polymer composition having greater than 50% of the polymer components in crystalline form. The present inventor has recognized that a crystalline polymer composition, in combination with the filler, will be rendered microporous by a relatively small degree of stretching which is tolerated by the low elongation fabric layer. Exhibit A also includes Samples C and D which represent breathable materials according to the invention and including, as the low-elongation fabric layer, the commercial materials CLAF® and TYPAR®, respectively.

Gardner et al disclose a breathable composite material comprising a laminate of a nonwoven web layer and a breathable film layer. The breathability of the composite is provided by a plurality of point-like deformations of the film layer. As explained in paragraph [0015], the plurality of point-like deformations means a number of small depressions or compressed areas that penetrate into the depths of the film layer but do not perforate or form holes in the layer, and

the term "point-like" is used to indicate that the deformations are essentially discrete from one another or disposed essentially continuously over a surface of the layer. Additionally, while stretching can be conducted to increase breathability, preferred composites are those in which breathability is provided by the plurality of deformations without, or with only insignificant, lengthwise or widthwise stretching (paragraph [0017]). Gardner et al disclose that heat and pressure are applied at a plurality of points on the surface of the coated web by passing the web through an embossing roll system in which at least one roll has been engraved or otherwise machined or treated to impart a plurality of raised point or areas to the surface thereof (paragraph [0042]).

One of ordinary skill in the art will readily appreciate that the nonwoven web layer of Gardner et al is not a low elongation fabric as required by the present claims. That is, in order to effectively form the raised points or areas, one of ordinary skill in the art would appreciate that the nonwoven fabric of Gardner et al would be readily compressible and flexible. In this regard, the Examiner's attention is directed to the exemplary nonwoven materials employed by Gardner et al which are disclosed as having high elongation properties. Specifically, nonwoven Fabrics A-E of Gardner et al are disclosed as having machine direction elongations of 97%, 118%, 118%, 62% and 44%, respectively, and cross direction elongations of 188%, 252%, 252%, 166% and 78%, respectively, all of which elongations are significantly greater than the less than about 30% elongation in at least one direction required for the low elongation fabric required by the present claims. While the teachings of Gardner et al are not limited to the exemplary materials, Gardner et al provide no teaching or suggestion for use of a low elongation material, i.e., having an elongation of less than about 30% in at least one direction, as presently claimed.

Additionally, and importantly, Gardner et al broadly disclose a number of polyolefin resins for use in the film layer in paragraphs [0020], [0023] and [0033], but only exemplify a

resin mixture comprising 70 parts by weight polyethylene concentrate (containing 31.7 weight % LLDPE), 10 parts by weight LLDPE and 25 parts by weight ULDPE (Example 1). Applicant finds no specific teaching or suggestion by Gardner et al of a breathable material with a layer or coating formed of a crystalline polymer composition as defined in the present application, having greater than 50% of the polymer components in crystalline form, particularly in combination with a low elongation fabric.

Anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference, *In re Robertson*, 49 USPQ2d in 1949, 1950 (Fed. Cir. 1999). Gardner et al provide no description, express or inherent, of a breathable material as defined in claim 1 and comprising a low-elongation fabric layer and a microporous coating thereon, with the microporous coating comprising a crystalline polymer composition and a filler. In view of these deficiencies in the teachings of Gardner et al, Gardner et al do not anticipate the presently claimed breathable materials. Therefore, the rejection of claims 1, 2, 5-10, 12-16 and 18 has been overcome. Reconsideration is respectfully requested.

Finally, claims 3, 4 and 17 were rejected under 35 U.S.C. §103(a) as being obvious and unpatentable over Gardner et al in view of the Carroll et al U.S. Patent Publication No. 2004/0023585 or the Sheth U.S. Patent No. 4,929,303. The Examiner relied on Carroll et al and Sheth as disclosing polyethylene nonwoven open mesh fabrics.

However, as will be set forth in detail below, Applicants submit that the breathable materials defined by claims 3, 4 and 17 are nonobvious over and patentably distinguishable from the combination of Gardner et al in view of Carroll et al or Sheth. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

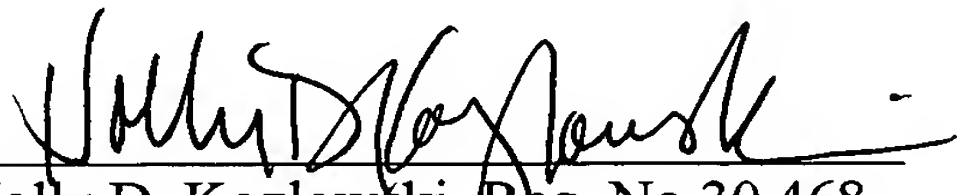
The breathable material of claim 1, from which claims 3, 4 and 17 depend, is discussed in detail above, as are the deficiencies of Gardner et al. Neither Carroll et al nor Sheth resolve these deficiencies. That is, Carroll et al disclose a conventional nonwoven - polyolefin film laminate which is rendered breathable by incremental stretching (see Fig. 2). Applicant finds no teaching or suggestion by Carroll et al that the nonwoven is a low elongation fabric or that the polyolefin film comprises a crystalline polymer composition as presently claimed. While Carroll et al disclose that their laminate may be further bonded to a scrim material (paragraphs [0064] and [0065]), Carroll et al still fail to disclose the combination of a low elongation fabric with a film formed of a crystalline polymer composition as claimed. It is also important to note that Carroll et al only envision use of such a low elongation material after stretching of the conventional film laminate has been completed. Moreover, Applicant finds no teaching or suggestion by Carroll et al or Gardner et al for combining their teachings along the lines of the invention, or relating to any improvement provided by such a combination. Thus, the combination of Gardner et al and Carroll et al does not render the presently claimed breathable material obvious.

Sheth discloses a composite breathable film comprising a breathable polyolefin film heat laminated to a nonwoven high density polyethylene (HDPE) fabric. However, Applicant finds no teaching or suggestion by Sheth relating to the combination of a low elongation fabric with a film formed of a crystalline polymer composition, as presently claimed. To the contrary, Sheth prefers the use of a linear low density polyethylene polymer (column 3, lines 1-26). Thus, Sheth also fails to resolve the deficiencies of Gardner et al. Moreover, Applicant finds no teaching or suggestion by Sheth or Gardner et al for combining their teachings along the lines of the invention, or relating to any improvement provided by such a combination. Thus, the combination of Gardner et al and Sheth et al does not render the presently claimed breathable material obvious.

In the Official Action, the Examiner asserted it would have been obvious to use an open mesh as taught by Carroll et al or Sheth in the material of Gardner et al. Applicant not only disagrees, as one of ordinary skill in the art would appreciate the difficulty of making the point like deformations of Gardner et al using the scrim of Carroll et al or the nonwoven of Sheth, such a combination does not result in the breathable materials of the invention as none of the cited references teach the combination of a low elongation fabric with a film formed of a crystalline polymer composition. Further, none of the cited references teach or suggest the advantages of such a combination. Accordingly, the cited combination of Gardner et al, Carroll et al and Sheth fails to render the claimed breathable materials obvious, whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

It is believed that the above represents a complete response to the rejections under 35 U.S.C. §§ 102 and/or 103, and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,


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